



Spokane Tribal Natural Resources

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November 28, 1997

Via Federal Express

Mr. Alan Moomaw
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

RE: Application for Treatment as a State

Dear Mr. Moomaw:

Enclosed please find the Spokane Tribe's Application for Treatment as a State (TAS), with Appendices. Our Tribal Council and Tribal Attorney were not available before the application deadline to sign the Resolution and Statement, respectively, so we will forward the signed documents as soon as possible next week.

Thank you for your consideration of this Application. The Spokane Tribe is eager to assume TAS status so that we may proceed with EPA-supported enforcement of Tribal Water Quality Standards and other environmental regulatory functions.

Please feel free to contact me or the Spokane Tribal Attorney, Dave Lundgren, if you have any questions regarding this application.

Sincerely,

Mary Moore

Mary Verner Moore
Director, Tribal Natural Resources Dept.

cc: Tribal Council
Dave Lundgren
Rudy Peone

**APPLICATION OF THE
SPOKANE TRIBE OF INDIANS**

FOR

TREATMENT AS A STATE

**UNDER SECTIONS 106, 303, 314, & 319
OF THE CLEAN WATER ACT**

Submitted November 28, 1997

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APPLICATION OF THE
SPOKANE TRIBE OF INDIANS
FOR TREATMENT AS A STATE
UNDER SECTIONS 106, 303, 314 & 319
OF THE CLEAN WATER ACT

The Spokane Tribe of Indians submits the following in support of its application to the U.S. Environmental Protection Agency, Region X, for Treatment as State under Sections 106, 303, 314, and 319 of the Clean Water Act, in order to promulgate and enforce Tribal Water Quality Standards on the Spokane-Indian Reservation.

A. FEDERAL RECOGNITION

The Spokane Tribe of Indians is a federally-recognized Indian Tribe, as confirmed in the Federal Register list of federally-recognized Tribes dated November 13, 1996, attached hereto as Appendix A.

B. SUBSTANTIAL GOVERNMENTAL DUTIES AND POWERS

1. Form of Government

The Spokane Tribal government consists of a Tribal Business Council which is elected, and a General Council which comprises all qualified voters of the Spokane Tribe. These Councils form the Tribal legislative branch, making law and policy for the Tribe. The Business Council is the governing body of the Tribe, and the General Council retains ratification authority in certain limited areas, such as for the relinquishment of jurisdiction or land. The Business Council has five members who are elected for two-year terms and organize annually into offices: Chairman, Vice-Chairman, Secretary, and two Members. Business Council elections are held every June.

The administrative branch of the Tribal Government includes several departments and programs, including: Cultural Resources, Health and Human Services, Public Works, Housing, Natural Resources, and general Administration. Each major department is administered by a department director who reports to the Executive Director and the Business Council.

The judicial branch consists of: (1) a Tribal Court that adjudicates criminal, civil and juvenile matters; (2) a Court of Appeals composed of three judges of the Tribal Court, other than the trial judge, who hear appeals from Tribal Court judgments; and, (3) various commissions that hear administrative appeals. Review before the Appeals Court is *de novo* unless the code governing the cause of action provides otherwise. The Appeals Court may consider the appeal solely on the record or it may consider the appeal on a combination of the record and additional evidence and testimony. Tribal Court judges and Appeals Court judges are appointed by the Business Council. Administrative commissions also are appointed by the Business Council.

An organizational chart of the Tribal Government is attached hereto as Appendix B.

2. Types of Governmental Functions: The Spokane Tribal government performs essential governmental functions of the Spokane Reservation, including:

a. Establishing and maintaining law and order on the Reservation through the Tribal Police Department, the Tribal Park Rangers Program, the Tribal Prosecutor's Office, the Tribal Public Defender's Office, the Tribal Court system, and the Tribal Law and Order Code.

b. Establishing and maintaining a complete Social Services Department that provides a variety of health, safety and welfare services. This Department includes a division of children and family services and an alcohol- and drug- prevention program.

c. Establishing and maintaining a Natural Resources Department that manages Tribal resources to protect human health and the environment and Tribal values. Programs in this Department include: Forestry, Fish & Wildlife, Range & Agriculture, Water Resources, and Environmental Programs. Major facilities operated within this Department include a fish hatchery and a certified analytical laboratory.

d. Establishing and maintaining a Public Works Department that provides solid waste collection and disposal and drinking water and wastewater systems.

e. Establishing and maintaining a Cultural Resources Department to protect Tribal cultural resources, including sacred sites, language, and Tribal history.

3. Sources of Current Tribal Authority

The Spokane Tribe of Indians is a self-governing independent sovereign within the United States, with inherent authority to carry out governmental functions. The Tribal membership adopted a Constitution that was approved by the Commissioner of Indian Affairs on June 27, 1951. The Constitution has been amended several times; the last amendments were made on January 6, 1987 and were approved by the Assistant Secretary for Indian Affairs on _____ (copies are attached as Appendix C). Tribal law is embodied in the Spokane Tribal Law & Order Code and its amendments, as well as in ordinances and resolutions that have been enacted by the Tribal Business Council under its Constitutional authority. The Tribe also derives authority from delegations under federal law and recognition of Tribal sovereignty by the government of the United States.

C. JURISDICTION OVER WATERS WITHIN THE BORDERS
OF THE SPOKANE INDIAN RESERVATION

1. Location of Spokane Indian Reservation

Maps of the Spokane Indian Reservation are attached as Appendix D. These maps include: a general location map of the Reservation, a map of the Spokane Tribe's exclusive aboriginal use area as established by the Indian Land Claims Commission, and a map of surface waters on the Reservation.

2. Statement of Basis of Tribe's Authority

By his signature at the end of this document, the Spokane Tribal Attorney states that the following paragraphs establish the basis for the Spokane Tribe's assertion of authority over waters within the territorial jurisdiction of the Spokane Indian Reservation.

Attached as Appendix E is a copy of the Executive Order of President Rutherford B. Hayes, dated January 18, 1881, which confirmed an Agreement made in the year 1877¹ to establish the exterior boundaries of the Spokane Indian Reservation. That Executive Order reads:

It is hereby ordered that the following tract of land, situated in Washington Territory, be, and the same is hereby, set aside and reserved for the use and occupancy of the Spokane Indians, namely: Commencing at a point where Chamokane Creek crosses the forty-eighth parallel of latitude; thence down the east bank of said creek to where it enters the Spokane River; thence across said Spokane River westwardly along the southern bank thereof to a point where it enters the Columbia River; thence across the Columbia River, northwardly along its western bank to a point where said river crosses the said forty-eighth parallel of latitude; thence east along said parallel to the place of beginning. - R.B. Hayes

In addition to this jurisdiction established by designation of the Reservation boundaries, the Spokane Tribe gained confirmation of its jurisdiction over boundary waters when Tribal fee title to a large portion of the original bed and banks of the Spokane River was confirmed in litigation. A Judgment and Decree Confirming Disclaimer and Quieting Title To Property describes this jurisdiction as:

¹See Northern Pacific Railway Company v. Wismer, 426 U.S. 283 (1918).

All of the river bed of the Spokane River as it existed prior to the building of Little Falls Dam and the flooding of Lake Roosevelt, up to the river's original lines of ordinary high water and lying between a point on the line of ordinary high water on the East bank of Chamokane Creek where Chamokane Creek enters the Spokane River and a point one and one-half miles East of the point of confluence of the Spokane River and the Columbia River. Spokane Tribe of Indians v. State of Washington, Washington Water Power Company and the United States of America, No. C-82-753-AAM (E.D. Wash. Sept. 14, 1990).²

The unique boundaries of the Spokane Reservation, which expressly include the outside banks of the border waterways, demonstrate a federal intent that the Spokane Tribe is to be not only the owner, but also the intended manager of the Reservation's waterways. The Tribe always will retain its inherent authority over these waters. (See City of Albuquerque v. Browner, 97 F.3d 415 (10th Cir. 1996).)

The waters of the Spokane Reservation have great traditional and spiritual significance for the Spokane Indian people. Before involuntary consolidation on the Reservation, there were three bands of Spokanes: upper, middle, and lower. Each band was identified by its location along the region's rivers. The bands were called by names that were associated with the salmon runs. For example, the middle band was called "Swinohomish," which means "pink-cheeked people" (like the salmon).

A primary purpose for which the Spokane Indian Reservation was established was to provide a subsistence fishery to the Spokane people. The boundaries drawn by President R.B. Hayes uniquely included Chamokane Creek, the Spokane River and the Columbia River within the Reservation with the intention of satisfying this purpose. The health, welfare, and economic security of the Tribe's future is heavily dependent on both protecting these waters and rebuilding their fisheries damaged by non-Indian conduct.

Through two separate federal court cases, the Tribe has secured rights to stream flows and water quality necessary to its Reservation subsistence fishery. In the first, a formal general

²This Judgment resolved the Spokane Tribe's claims for ownership of the Spokane River against the United States and the State of Washington. The Tribe's claims against a third party were resolved subsequently in a judicially-approved Settlement Agreement which recognized the Tribe's fee title to an area of the Spokane River occupied by a Washington Water Power Company hydroelectric facility. Judgment, Spokane Tribe of Indians v. Washington Water Power Company, No. C-82-753-AAM (E.D. Wash. March 3, 1994).

adjudication of Chamokane Creek's waters, the court recognized that the Tribe's senior Winters rights included not only the quantities necessary to a viable fishery, but also the flows needed to maintain the water temperature low enough to support the stream's trout population. U.S. v. Anderson, 591 F.Supp.1 (E.D. Wash. 1979) (parties included the Tribe, the United States, the State of Washington, and Chamokane Creek basin water users). Further orders in that case explicitly recognize the need to regulate even ground waters in connection with the Tribe's in-stream rights to Chamokane Creek's waters.

The second case involved the reach of the Spokane River within the Reservation. While not a general stream adjudication, the case nonetheless resulted in establishing for the Tribe flow rights and water quality rights in the Spokane River as against the operator of six hydroelectric generating facilities spanning the full length of the Spokane River to its source in Idaho. Spokane Tribe of Indians v. State of Washington and Washington Water Power Company, No. C-82-753-AAM (E.D. Wash. March 3, 1994) (the United States was also a party).

Tribal members depend on the Reservation's surface waters for a variety of purposes, including domestic, fishing, swimming, stock water, irrigation, and cultural uses. Appendix F describes, on a water-body specific basis, the potential for serious and substantial impacts to the Spokane Tribe's political integrity, economic security, health and welfare due to land-use activities and their associated alteration of the Reservation's water resources.

3. Spokane Tribal Authority Over Reservation Lands Owned in Fee by Non-Tribal Members

By his signature at the end of this document, the Spokane Tribal Attorney states that the following paragraphs establish the basis for the Spokane Tribe's assertion of authority over Reservation lands owned in fee by non-Tribal members.

(a) Inherent Authority of the Tribal Sovereign

Article III of the Spokane Tribal Constitution sets forth the territorial jurisdiction of the Spokane Tribe:

The jurisdiction of the Spokane Tribe, acting through its government as hereby established, shall extend to and include all lands and water areas within the exterior boundaries of the Spokane Reservation established under the terms of the 1877 agreement and the Executive Order, January 18, 1881, and any extensions thereof, and all Spokane Tribal and allotted Indian lands outside the exterior boundaries of the Spokane Indian Reservation.

The Spokane Indian Reservation encompasses approximately 159,469 acres. Of that total, approximately 154,603 acres are upland and approximately 5,370 acres are submerged under or in the freeboard of Lake Roosevelt (the reservoir of the Columbia and Spokane Rivers behind Grand Coulee Dam). Upland acreage ownership within the Reservation is approximately as follows, although the Tribe's repurchase of lands is causing these figures to change:

Acres in Tribal trust status	100,221
Acres in Allotments	29,614
Deeded "fee" lands	21,683
"Government" land	3,085

(Figures from Bureau of Indian Affairs, Spokane Agency, Wellpinit, WA.)

A tract of approximately 160 acres of the Tribe's trust land is located outside the Reservation boundaries (south of the town of Chewelah); this tract is also within the Spokane Tribe's jurisdiction.

Current Tribal membership is 2,176 enrolled members, of whom approximately 875 reside on the Reservation. The non-Indian population on the Reservation is approximately 627. A number of non-member Indians also reside on the Reservation. (Information from the Spokane Tribal Enrollement Office and the 1990 Census.)

The authority of the Spokane Tribe to set water quality standards applicable to the entire Reservation derives from two sources: (1) the Tribe's police power to protect the health and safety of all persons within the exterior boundaries of the Reservation; and, (2) the authority delegated by Congress under the Clean Water Act. The police power authority is part of the Tribe's inherent sovereign power that has existed since time immemorial. The sovereign power of the Tribe was recognized and preserved by the United States, acting under the Indian Commerce Clause of the U.S. Constitution and in well-established principles of Federal Indian Law, as set forth in opinions of the U.S. Supreme Court.³

³ See, e.g.: Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 559 (1932); Williams v. Lee, 358 U.S. 217 (1959); McLanahan v. Arizona State Tax Comm'n, 411 U.S. 164 (1973); United States v. Wheeler, 435 U.S. 313, 327 (1978); Montana v. United States, 450 U.S. 544, 564-566 (1981); Merrion v. Jicarilla Apache Tribe, 455 U.S. 130, 149 (1982); New Mexico v. Mescalero Apache Tribe, 462 U.S. 324, 334, n. 16 (1983); National Farmers Union Ins. Co. v. Crow Tribe, 471 U.S. 845 (1985); Iowa Mutual Ins. Co. v. LaPlante, 480 U.S. 9, 18 (1987); Brendale v. Confederated Tribes and Bands of the Yakima Nation, 492 U.S. 408 (1989).

(b) Delegation of Authority in the Clean Water Act

It is the Spokane Tribe's position that the U.S. Congress, in enacting Section 518 of the Clean Water Act, expressly authorized the delegation to Tribal governments of all civil regulatory authority over water quality management programs under Section 518. To find otherwise would jeopardize the viability of all programs; the Tribe does not believe Congress could have intended such a result. The Spokane Tribe agrees with EPA that a "checkerboard" system of regulation is not effective or feasible and that "Congress has expressed a preference for Tribal regulation of surface water quality to assure compliance with the goals of the CWA." 56 Federal Register, 64,878 (1991). Congressional delegation would be the most rational and effective means to achieve desired results, and the Spokane Tribe adopts the view that this delegation was Congress' intent.

Reservation waters are subject to protection under the Clean Water Act in part because improperly regulated water pollution can have serious and substantial impacts on human health and welfare. EPA has stated that activities regulated under various EPA statutes generally have serious and substantial impacts on human health and welfare. The responsibilities and authorities bestowed on the Tribal Business Council under the Tribal Constitution include addressing water quality issues to protect the Tribal health and welfare.

(c) Supreme Court Decisions Addressing Tribal Authority Over Non-Indians

The Spokane Tribe has specific authority over waters contained within, or flowing through, non-Indian owned fee lands located within the Reservation as an inherent aspect of Tribal retained civil jurisdiction of non-Indian and non-member Indian conduct on Reservation fee lands. The U.S. Supreme Court has established that Tribes retain such authority where the behavior to be regulated "threatens or has some direct effect on the political integrity, the economic security or the health or welfare of the Tribe." Montana v. United States, 450 U.S. 544, 565-6 (1981). The Spokane Tribe agrees with EPA that the Supreme Court's decision in Brendale v. Confederated Tribes and Bands of the Yakima Nation, 492 U.S. 408 (1989), is "fully consistent with the Montana case in this regard." (See EPA's "interim operating rule" at 56 Federal Register 64,877 (1991).)

U.S. Supreme Court decisions addressing Tribal authority over non-Indians have been based on the land where non-Indian activity took place. In Williams v. Lee, 358 U.S. 217 (1959), the Court said, "It is immaterial that the plaintiff is not Indian. He was on the reservation and the transaction with an Indian took place there." In Morris v. Hitchcock, _____,

the Court upheld a tribal tax on non-member owned livestock within the boundaries of a reservation. In the Montana case, the Court considered the issue of the Tribe regulating lands within the reservation owned in fee simple by non-Indians. Cases in the Supreme Court consistently have guarded the authority of Indian governments over their reservations. (See Footnote 3, supra.) Lower federal courts also have upheld tribal regulatory jurisdiction over non-Indians in Indian Country.

Recently, in Strate, et al. v. A-1 Contractors, 117 S.Ct. 1404 (1997), the Supreme Court held that, absent a statute or treaty authorizing the Tribe to govern the conduct of non-members driving on a public highway maintained by the State pursuant to a federally-granted right-of-way through an Indian reservation, Tribal courts may not exercise civil jurisdiction over an allegedly negligent non-member involved in a traffic accident on the public highway. The Court equated a highway right-of-way to land that had been alienated to non-Indians by the Tribe. The Strate Court held that the Montana test did not apply where Tribal jurisdiction is not crucial to "the political integrity, the economic security, or the health or welfare of the Tribe," citing Montana at 566. The Court in Strate treated the contract between A-1 and the tribe as outside Montana's exception for "consensual relations" with the Tribe on the basis that the plaintiff was not a party to the contract; the Court thus focused on relations between the drivers instead of relations between the Tribe and the party objecting to the Tribe's jurisdiction.

Montana's two-pronged test (consensual relations with the Tribe and/or conduct which threatens or has some direct effect on the political integrity, economic security, or health or welfare of the Tribe) addresses whether a State's exercise of authority would infringe unduly on Tribal self-government. State involvement in Tribal water quality management clearly would be such an infringement. Due to the inherent mobility of water and the effects of water quality within the reservation, water quality concerns are distinguished easily from situations such as those presented in Strate. Contamination of waters by non-Indians on fee lands is not comparable to two vehicles passing each other on a highway. Pollution and contamination can permeate ground and surface waters of the reservation and substantially impact Tribal health and welfare, economic security, and political integrity.

For all of the above reasons, the Spokane Tribe possesses the requisite authority to set water quality standards for all Reservation surface waters.

4. Identification of the Surface Waters for Which
the Spokane Tribe Proposes to
Establish Water Quality Standards

The major surface waters of the Spokane Indian Reservation are depicted in a map in Appendix D.3. The primary water bodies to be protected by Tribal Water Quality Standards are:

Blue Creek
Castle Rock Creek
Chamokane Creek
Cottonwood Creek
Deep Creek
Little Chamokane Creek
Moses Creek
Orazada Creek
Owl Creek
Oyachen Creek
Rail Creek
Sams Creek
Sand Creek
Sheep Creek
Thomas Creek
Wellpinit Creek
Spokane River
Columbia River
Benjamin Lake
Mathew Lake
McCoy Lake
Turtle Lake
Numerous named and un-named springs

5. Known Threats to Water Quality Which Will Be Addressed by
Tribal Water Quality Standards

Significant contamination problems are known to exist in the Reservation's surface waters. Due to hydraulic interfaces, contamination of surface waters also can affect the quality of groundwater, thus jeopardizing the most important source of drinking water for the Reservation's residents.

Currently, portions of the Spokane and Columbia Rivers and Chamokane Creek (the Spokane Reservation's three boundary waters) are on the Washington State 303(d) list. Portions of the Spokane and Columbia Rivers also are listed on the 305(b) list and these rivers do not meet Washington Water Quality Standards for Class "A" streams during certain times of the year. Hydroelectric dams on the Spokane and Columbia Rivers create total dissolved gas saturation readings above Washington State criteria. Nitrate concentrations in the Spokane River have been high. Industrial plants just across the Canadian border have contaminated the

Columbia River with zinc and other toxic pollutants and nutrient loads.

Radiological and other contaminants from uranium mining and milling have contaminated Chamokane Creek and Blue Creek. Fecal coliform samples in Chamokane Creek and its tributaries have exceeded Washington State Water Quality Standards. Human-caused impurities such as sediments and wastes from industrial and agricultural pursuits impose measurable levels of contamination on Tribal watercourses. Controlling human-caused pollution is a central concern for the Spokane Tribe.

The following are specific examples of non-Indians having a detrimental effect on Spokane Indian Reservation water quality:

- Landowner dumping large volumes of chicken manure on land adjacent to Chamokane Creek and its floodplain. Water quality concerns include impacts of bacteriological and chemical pollutants on public health, degradation of fish populations and their habitat, and risk to the community drinking water supply.
- Landowner building a road across the bed of Chamokane Creek. Changes in turbidity from sediment disturbances and possible pH changes cause temporary exceedances of water quality criteria. Gas, oil, and grease from machinery used during construction/excavation each year cause degradation of fish habitat.
- Landowner bulldozing a "beach" out of riparian habitat along Chamokane Creek. This changed turbidity from sediment disturbance and will divert, obstruct, and change flow of Chamokane Creek and cause a permanent alteration of boundaries. Negative impacts to bank and shoreline vegetation (such as erosion) are more dramatic where soils are least protected by vegetative growth. Temperature will increase without riparian vegetation cover, thus impeding fish populations in their spawning and rearing due to decreased embankment cover.
- Landowners dumping garbage and stockpiling junked cars on steep banks along Chamokane Creek. Such sources of pollution can alter the physical, chemical and biological properties of the creek, causing changes in temperature, taste, color, turbidity, or odor, which is likely to create a nuisance or impair the beneficial uses of such water.

- Landowner operating a septage disposal facility along a tributary to Chamokane Creek. Water quality concerns include impacts to public health and degradation of fish populations and their habitat. High coliform bacteria counts and potential high nitrate concentrations threaten surface and ground water quality.

- Landowner dredging McCoy Creek to keep spring flood waters off his agricultural land. Waters should be free from soil particles resulting from erosion of land involved in earthwork, such as the cultivation and management of agricultural lands. Drastically increased sediment load into McCoy Lake creates temperature and nutrient problems.

- Landowner withdrawing surface water directly from Chamokane Creek. This will divert, obstruct, or change the natural flow or bed of fresh/navigable water of the Spokane Tribe. This will have an effect on temperature and will be a violation of court orders in U.S. v. Anderson.

- Dawn Mining Company's uranium mill site at Ford is contaminating Chamokane Creek, and the Midnite Uranium Mine is contaminating Blue Creek. This contamination is ongoing; however, the large "seep" event at the Midnite Mine in the spring of 1997 was an example of occasional excursions beyond the "normal" pollutant load from these sources. Both sites have known seeps that are monitored and both negatively impact water quality with pH changes and metals, including radionuclides.

The mobile nature of pollutants in water and the difficulty of managing separately for impacts from fee lands versus impacts from trust lands make a distinction between the ownership status of different lands an unmanageable basis for water quality protection. Any impairment of water quality occurring on or arising from fee lands will impair water quality on Tribal or other Reservation lands. Serious environmental and health effects cross ownership boundaries and put Tribal waters at risk whenever waters on fee lands are at risk.

D. CAPABILITY TO ADMINISTER PROGRAMS

The Spokane Tribe has exhibited extensively its capability to assume and manage programs benefitting the public interest and welfare. As described in Section B.2. above, the Tribe fulfills a broad range of governmental functions, including law and order, public works, social services, and natural resource management.

The Tribal entities exercising legislative, executive, and judicial functions of the Tribal government are described above in Section B.1.

The Tribal agency which will assume the CWA program is the Tribal Water Resources Program, within the Tribal Natural Resources Department.

The Spokane Tribal Natural Resources Department, created in 1994, encompasses several programs that pre-date the formation of the Department, including a Forestry program that has been in existence since the first BIA timber sale in 1918. The Forestry Program manages approximately 103,000 acres of commercial timberland, including administration of timber sales, forest development and silviculture, timber stand improvements, and a fire management program that responds to wildfires and conducts controlled burns for forest health.

The Tribal Fisheries program has been developing since the establishment of the Upper Columbia United Tribes Fisheries Center at Eastern Washington University in 1984. The Spokane Tribal Hatchery, constructed adjacent to Chamokane Creek at Galbraith Springs in 1990, currently produces 500,000 kokanee yearlings and 625,000 rainbow trout fingerlings for release into Lake Roosevelt and the Reservation's waters. The Range and Agriculture Program is responsible for livestock control, noxious weed control, development of stock watering places, and administration of leases and agreements for farm Tribal lands.

The Tribal Wildlife Program monitors populations of big game (primarily deer and elk) and advises land managers on appropriate uses of Reservation lands to protect and enhance wildlife habitat. This program also assists with the Tribal Land Purchase Project, identifying lands which are key wildlife habitat and developing habitat management plans for lands re-acquired by the Tribe.

The Timber, Fish & Wildlife (TFW) Program is a program specially funded by the BIA to address impacts on the Reservation from logging activities on private fee land. The Washington Department of Natural Resources recognizes the Tribe's interest and authority over forest habitat and cultural resources across the entire Reservation and into the Tribe's aboriginal territory. The State has indicated a willingness to designate the Spokane Tribal TFW Manager to serve as the State's field enforcement forester for all State Forest Practice Applications within the Reservation.

Until recently, the Tribal Parks and Recreation Program was within the Natural Resources Department. Although this activity has been moved into the Tribal Law Enforcement Program, the Park Rangers and Parks Maintenance staff continue to coordinate with Natural Resources Staff to ensure that the Tribe's shorelines and

interior waterways are safe and pleasant for recreation. The Park Rangers have authority to enforce Tribal, federal, and some State laws and the Rangers have been very helpful in assisting the Department with investigations and evidence collection to institute enforcement actions against persons who have damaged the Reservation's water, soils, forests, and wildlife populations.

~~Tribal Environmental Programs include:~~ the Air Quality Program, funded by EPA dollars to install an air monitoring network and to train a Tribal member to operate and maintain that network⁴; and, the Pesticides, Toxics, and Hazardous Wastes Program, which is establishing a registry of all pesticides and toxic and hazardous materials present on the Reservation and planning for public information as required under the Community Right-to-Know provisions of the Superfund Amendments and Reauthorization Act (SARA Title III). The Tribe uses funds from the Administration for Native Americans (ANA) to monitor and assess reclamation alternatives proposed by Dawn Mining Company and federal agencies managing the closure of the Midnite Uranium Mine and the Dawn uranium mill site in Ford, Washington (adjacent to Chamokane Creek). These ANA funds also are used to develop the Tribe's Geographic Information Systems (GIS) capabilities.

The Tribal Environmental Program also monitors actions regarding underground storage tanks on the Reservation, and is actively involved in coordinating improved Solid Waste Management, including implementing an alternative to the Reservation's open dumps and enforcing against illegal dumping. This program also addresses, as opportunities arise, community emergency preparedness and environmental education.

The Spokane Tribal Water Resources Program is a member of the Tribal Model Water Quality Coordination group, an informal coalition of northwest region Indian Tribes, funded by U.S. EPA General Assistance Program funds and facilitated by the Northwest Indian Fisheries Commission. Spokane Tribal Water Resources currently monitors water quality in most of the Reservation's surface waters, in all community drinking water systems, and in individual wells where potential for water quality problems is high (i.e., in wells near landfills, uranium mills, wastewater treatment systems, etc.). This program also has designated wellhead protection areas, which it monitors, and is working on Watershed Management Plans, including one cooperative effort with the Stevens

⁴The Tribe also has a Settlement Agreement with KVA, a power-facility proponent which agreed to provide the Tribe some funds to monitor baseline air quality on the Reservation in the event that KVA builds a gas-fired electric-generating plant upwind of the Reservation so that the Tribe can assess impacts of the power plant's operation on the Reservation's Class I Airshed.

County Conservation District to develop a Chamokane Basin Watershed Plan. The Water Resources Program has constructed weirs and conducted other riparian restoration projects and this year began a two-year restoration project along the Chamokane Creek riparian corridor under an EPA Wetlands Protection grant.

Water analyses are conducted at the Tribe's own state- and EPA- certified analytical laboratory, located in the city of Spokane, but operated as a Tribal enterprise. The laboratory is managed as a facility within the Tribal Water Resources Program and provides essential services to this and other Tribal programs, as well as commercial services to the general public.

In addition to on-the-ground management, the Tribal Water Resources Program also participates in Tribal government actions to protect Tribal water rights, as confirmed in United States v. Anderson, 591 F.Supp. 1 (E.D. Wash. 1979), rev'd in part on other grounds, 736 F.2d 1358 (9th Cir. 1984). Under a federal court order on September 12, 1979, in United States v. Anderson, No. CV-72-3643, E.D., a Water Master was appointed to monitor appropriations of water in the Chamokane Creek basin, in order to protect the Tribe's federally-reserved priority water rights and in-stream flows for the fisheries resource. Monitoring of flow and water quality by the Tribal program is coordinated with monitoring by the U.S. Geological Survey and the Washington Department of Ecology to ensure that concerns about water rights in the Chamokane Basin are brought under the continuing jurisdiction of the federal court.

The Tribe has the authority, upon receipt of evidence of a pollution source(s) that presents an imminent and substantial endangerment to human health or welfare, to bring suit in Tribal Court to restrain the polluter from continued discharge of such pollution or to take other such actions as may be necessary, such as stop work orders.

Where the Tribal Water Resources Program may be called upon to regulate another Tribal entity, such as a Tribal program or enterprise whose activities cause impacts on water quality, the Tribe will resolve regulator/regulated conflicts by convening a meeting of the relevant Tribal programs before the Tribal Business Council, which will hear all pertinent issues and render a decision giving direction to each program to proceed to resolve the conflict.

STATEMENT OF THE SPOKANE TRIBAL ATTORNEY

I have participated in the preparation of this Application, including preparation and review of Sections B.3., C.2, and C.3, regarding Tribal authority to exercise regulatory control over water resources within Spokane Tribal jurisdiction, and I affirm that the authorities identified herein accurately reflect the Spokane Tribe's basis for exercising authority over water resources and justify Treatment as a State by the U.S. Environmental Protection Agency for purposes of delegating the authority under Section 303 of the Clean Water Act.

David R. Lundgren
Spokane Tribal Attorney
P.O. Box 100
Wellpinit, WA 99040
Telephone: 509-258-7550

Date: _____

R E S O L U T I O N

APPLICATION FOR TREATMENT AS A STATE

WHEREAS, the Spokane Tribal Council is the duly constituted governing body of the Spokane Tribe by authority of the Constitution of the Spokane Tribe; and

WHEREAS, under the Constitution of the Tribe, the Spokane Tribal Council is charged with the duty of protecting the health, security and general welfare of the Spokane Tribe and all Reservation residents; and

WHEREAS, Congress has authorized the United States Environmental Protection Agency (EPA) to delegate federal authority to tribes to enforce water quality standards upon Indian reservations under the Clean Water Act; and

WHEREAS, the Business Council has determined that enforcement of Tribal water quality standards through the Clean Water Act is needed on the Spokane Reservation to protect the health, security and general welfare of residents within the jurisdictional lands of the Spokane Tribe; and

WHEREAS, the first step in securing enforcement authority under the Clean Water Act requires that the Tribe apply for treatment as a state;

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Spokane Tribal Business Council that the Council authorizes submittal of the attached application to the EPA, Region X, for Treatment as a State status under Section 303 of the Clean Water Act, and further authorizes the submittal of Tribal Water Quality Standards for approval by EPA and adoption by the Spokane Tribe.

CERTIFICATION

The foregoing was duly enacted by the Spokane Tribal Business Council on the ____ day of _____, 1997, by the vote of ____ for, ____ against and ____ abstaining, under authority contained in Article VIII of the Constitution of the Spokane Tribe of Indians.

Bruce Wynne, Chairman

APPENDICES TO

APPLICATION OF THE

SPOKANE TRIBE OF INDIANS

FOR

TREATMENT AS A STATE

UNDER SECTIONS 106, 303, 314, & 319

OF THE CLEAN WATER ACT

Submitted November 28, 1997

Copr. © West 1997 No claim to orig. U.S. govt. works

61 FR 58211-02

1996 WL 655490 (F.R.)

(Cite as: 61 FR 58211)

NOTICES

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

Indian Entities Recognized and Eligible To Receive Services From the United States Bureau of Indian Affairs

Wednesday, November 13, 1996

***58211** AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice.

SUMMARY: Notice is hereby given of the current list of tribal entities recognized and eligible for funding and services from the Bureau of Indian Affairs by virtue of their status as Indian tribes. This notice is published pursuant to Section 104 of the Act of November 2, 1994 (Pub. L. 103-454; 108 Stat. 4791, 4792).

FOR FURTHER INFORMATION CONTACT: Daisy West, Bureau of Indian Affairs, Division of Tribal Government Services, MS-4641-MIB, 1849 C Street, NW, Washington, D.C. 20240. Telephone number: (202) 208-2475.

SUPPLEMENTARY INFORMATION: This notice is published in exercise of authority delegated to the Assistant Secretary--Indian Affairs under 25 U.S.C. 2 and 9 and 209 DM 8.

Published below are lists of federally acknowledged tribes in the contiguous 48 states and in Alaska. The list is updated from the last such list published in February 16, 1995 (60 FR 9250), to include tribes acknowledged through the Federal acknowledgment process. The listed entities are acknowledged to have "the immunities and privileges available to other federally acknowledged Indian tribes by virtue of their government-to-government

relationship with the United States as well as the responsibilities, powers, limitations and obligations of such tribes." 25 CFR 83.2 (1996 ed.). We have, however, continued the practice of listing the Alaska Native entities separately solely for the purpose of facilitating identification of them and reference to them given the large number of complex Native names.

Indian Tribal Entities Within the Contiguous 48 States Recognized and Eligible to Receive Services From the United States Bureau of Indian Affairs

Absentee-Shawnee Tribe of Indians of Oklahoma

Agua Caliente Band of Cahuilla Indians of the Agua Caliente Indian Reservation, California

Ak Chin Indian Community of Papago Indians of the Maricopa, Ak Chin Reservation, Arizona

Alabama and Coushatta Tribes of Texas

Alabama-Quassarte Tribal Town of the Creek Nation of Oklahoma

Alturas Indian Rancheria of Pit River Indians of California

Apache Tribe of Oklahoma

Arapahoe Tribe of the Wind River Reservation, Wyoming

Aroostook Band of Micmac Indians of Maine

Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation, Montana

Augustine Band of Cahuilla Mission Indians of the Augustine Reservation, California

Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin

Bay Mills Indian Community of the Sault Ste. Marie Band of Chippewa Indians, Bay Mills Reservation, Michigan

Bear River Band of the Rohnerville Rancheria of California

Skokomish Indian Tribe of the Skokomish Reservation, Washington

Skull Valley Band of Goshute Indians of Utah

Smith River Rancheria of California

Soboba Band of Luiseno Mission Indians of the Soboba Reservation,
California

Sokaogon Chippewa Community of the Mole Lake Band of Chippewa
Indians, Wisconsin

Southern Ute Indian Tribe of the Southern Ute Reservation,
Colorado

Spokane Tribe of the Spokane Reservation, Washington

Squaxin Island Tribe of the Squaxin Island Reservation, Washington

St. Croix Chippewa Indians of Wisconsin, St. Croix Reservation

St. Regis Band of Mohawk Indians of New York

Standing Rock Sioux Tribe of North & South Dakota

Stockbridge-Munsee Community of Mohican Indians of Wisconsin

Stillaguamish Tribe of Washington

Summit Lake Paiute Tribe of Nevada

Suquamish Indian Tribe of the Port Madison Reservation, Washington

Susanville Indian Rancheria of Paiute, Maidu, Pit River & Washoe
Indians of California

Swinomish Indians of the Swinomish Reservation, Washington

Sycuan Band of Diegueno Mission Indians of California

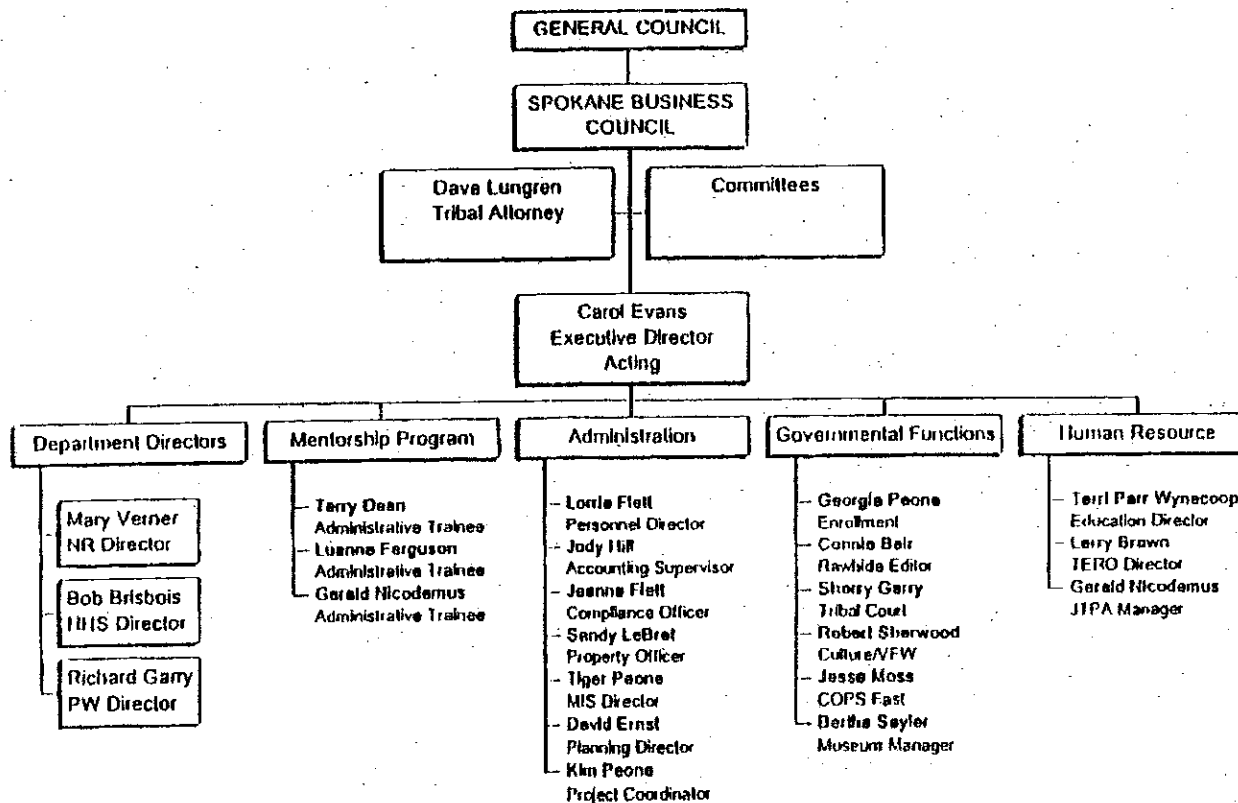
Table Bluff Rancheria of Wiyot Indians of California

Table Mountain Rancheria of California

Te-Moak Tribes of Western Shoshone Indians of Nevada

Governmental Organizational Chart

PROPOSED ORGANIZATIONAL CHART SPOKANE TRIBAL GOVERNMENT



Appendix C.

CONSTITUTION
OF
THE SPOKANE TRIBE-SPOKANE RESERVATION

Wellpinit, Washington

PREAMBLE

We, the Indians of the Spokane Reservation, initially organized under a constitution and bylaws effective on June 27, 1951, in order to improve our recognized tribal organization for management of our tribal affairs, do hereby establish this Constitution.

ARTICLE I - PURPOSE

Our purpose shall be to promote and protect the sovereignty, rights, and interests of the Spokane Tribe of Indians.

ARTICLE II - TERRITORY AND JURISDICTION

The jurisdiction of the Spokane Tribe, acting through its government as hereby established, shall extend to and include all lands and water areas within the exterior boundaries of the Spokane Reservation established by Executive Order, January 18, 1881, and any extensions thereof, and all Spokane Tribal and allotted Indian lands outside the exterior boundaries of the Spokane Indian Reservation. 1/

ARTICLE III - MEMBERSHIP

Section 1. The membership of the Spokane Tribe shall consist of:

(a) All persons of Spokane Indian blood whose names appear on the official census of the Spokane Tribe as of January 1, 1951, provided that corrections may be made in said census by the Business Council subject to the approval of the Secretary of the Interior, as long as such approval is required by law.

(b) All children of one-fourth (1/4) or more degree of Indian blood born subsequent to January 1, 1951, but prior to midnight, September 1, 1963, to any parent who is an enrolled member of the Spokane Tribe and:

(c) All children of one-fourth (1/4) or more degree of Indian blood born subsequent to midnight, September 1, 1963, to any enrolled member of the Spokane Tribe who is one-fourth (1/4) or more degree of Spokane Indian blood.

Section 2. Transfer of Enrollment: There are hereby established the following eligibility requirements for applicants for transfer of enrollment from another tribe into the Spokane Tribe.

(a) Applicants must be at least one-fourth (1/4) degree of Spokane Indian blood.

(b) Applicants must have lived on the Spokane Indian Reservation for a period of at least ten (10) years prior to filing application (provided that bona fide absence for purposes of attending school or service in the U.S. Armed Forces shall not be deemed to be absence from the reservation).

(c) No person may transfer enrollment into the Spokane Tribe unless a notarized written statement is signed relinquishing membership in any other tribe and in the tribal property or other assets of any other tribe or reservation.

Section 3. The Business Council shall have the power to enact ordinances, subject to this Constitution governing future membership, transfer of enrollment, and loss of membership in the Spokane Tribe. Such ordinances, however, shall not be in conflict with the foregoing standards and requirements for membership.

ARTICLE IV - RIGHTS OF MEMBERS

Section 1. Every tribal member shall have an equal opportunity to participate in the economic resources and activities of the Spokane Indian Tribe and the right to exercise traditional rights and privileges of members of the tribe where not in conflict with other provisions of this Constitution, Tribal laws and ordinances, or the laws of the United States.

Section 2. This Constitution and the Tribal Government it establishes shall not encroach upon or limit any person's right to enjoy freedom of worship, conscience, speech, press assembly and association, and other rights established by Federal Law.

ARTICLE V - GOVERNING BODY

Section 1. The governing body of the Spokane Tribe shall be a Business Council of five (5) members, consisting of a Chairman, Vice Chairman, Secretary, and two (2) Members.

Section 2. No person shall be a candidate for membership on the Business Council or for any other elective office unless he is a member of the Spokane Tribe, shall have actually lived on the Spokane Reservation for two (2) years next preceding the election and shall be at least twenty-five (25) years of age, but not more than seventy (70) years of age.

Section 3. No person shall be eligible to be a candidate for membership on the Business Council or any other elective office or to remain as an incumbent in any such office if convicted of a felony or of a misdemeanor involving dishonesty. Such ineligibility shall continue for a period of five (5) years after conviction or five (5) years after completion of actual incarceration, whichever comes later.

Section 4. Business Council members shall be elected for three-year staggered terms. Council positions shall be numbered 1, 2, 3, 4 and 5, which numbers shall permanently identify each Council position. Position 3 shall be filled by the election held in June, 1981; Position 4 and 5 shall be filled by the election held in June, 1982; Positions 1 and 2 shall be filled by the election held in June 1983. The first order of business of the new council after each election shall be the election of officers for the ensuing year. A candidate for the Business Council shall identify the number of the position for which he is running. The term of an incumbent Council member shall continue until his successor is duly elected and installed.

Section 5. The General Council shall be composed of all the qualified voters of the Spokane Tribe who attend a General Council or Tribal meeting properly called in accordance with this Constitution and shall be authorized to exercise such powers as may be delegated to that body by the terms of this Constitution.

ARTICLE VI - NOMINATION AND ELECTIONS

Section 1. Elections of Business Council members and of other tribal elective officers shall be held annually during the month of June and shall be called by the Business Council and conducted by the Election Committee according to an election ordinance provided by the Election Committee and approved by the Business Council. All elections shall be by secret ballot. The election ordinance shall include provisions for resolving election disputes, procedures for submitting any petitions provided for in this Constitution and a procedure for determining their validity.

Section 2. All elections shall be conducted by an Election Committee composed of three (3) qualified tribal voters. One (1) alternate shall be available to serve in the absence of a regular member of the Election Committee. Such committee shall conduct elections in conformity with the Election Ordinance and this Constitution, and certify the results of the election to the Business Council on the Monday following the election. The Business Council shall immediately consider the certified results of the election and, unless some invalidity, illegality, tie vote or a failure of the leading candidate for an office to receive a fifty percent (50%) or greater majority (as provided in Section 3 of this Article) requiring another election, officially accept the certified results. A Spokane Tribal Judge shall administer the oath to the elected members. Elected officers shall assume responsibility ten (10) working days after said certification.

Section 3. If the top two (2) candidates for an elective office are tied or no candidate for an office has received fifty percent (50%) or more of the total vote cast for that office, a run-off election shall be called for and held the second Saturday after the Annual Election. Such election shall be between said tied candidates or between the two candidates for the particular office who received the most votes. 3/

Section 4. A qualified voter is any member of the Spokane Tribe, eighteen (18) years of age or over. He shall exercise his right of vote in person at a prescribed voting place.

ARTICLE VII - VACANCIES AND RECALL

Section 1. Any vacancy in the Business Council shall be filled by the Business Council. Such appointee shall qualify pursuant to Article V and hold office until the next regular election when it shall be filled by election for the balance, if any, of the unexpired term. No vacancies that occur within three (3) months of the next regular election shall be filled except that the remainder of the Business Council shall fill any vacancies in excess of two (2) so that the Business Council may maintain a quorum.

Section 2. Recall: Upon receipt of a written petition signed by one hundred twenty-five (125) qualified voters calling for the recall of any tribal elected official, it shall be the duty of the Business Council to call a special General Council meeting to conduct a hearing for the member involved within ten (10) days of receipt of said petition. Any enrolled member of the Tribe may attend said hearing. If at the conclusion of the hearing, a majority of voting members of the Spokane Tribe attending the hearing vote to hold a recall election, an election shall be called for that purpose. The challenged incumbent shall automatically be a candidate in said election, unless he withdraws. Other candidates may have their names placed on the ballot and said election shall be conducted within thirty (30) days in the same manner as a regular general election.

ARTICLE VIII - POWERS AND DUTIES OF THE SPOKANE BUSINESS COUNCIL

The powers and duties set forth in this Article shall be exercised by the Business Council to the full extent permitted by Federal Law. All the powers and legal authority, express, implied or inherent, vested by existing law in the Spokane Indian Tribe as a sovereign political entity, which powers and legal authority shall include but not be limited to the following specific powers and duties:

(a) To legislate and enforce a comprehensive law and order code and Tribal Court System extending tribal, civil, and criminal jurisdiction, to the extent said code provides, over all persons residing on or coming upon the reservation and over all land and water areas over which the Tribe has jurisdiction as provided in Article II above.

(b) To administer the affairs and assets of the Tribe including tribal lands, funds, minerals, timber, water rights and other resources under appropriate contracts, leases, permits, loans or sale agreements. In the sale or other transfer of tribal lands, the Tribe and Business Council shall take every precaution in appropriate cases so that the land does not go out of trust.

(c) To provide for taxes, assessments, permits and license fees upon members and non-members of all lands within the jurisdiction of the Spokane Tribe of Indians. 2/

(d) To employ legal counsel to assist in the protection and advancement of the Tribe. The choice of counsel and the fixing of fees to be subject to the approval of the Secretary of the Interior or his authorized representative as long as such approval is required by law.

(e) To negotiate with and represent the Tribe before Federal, State and local governments and their departments and agencies.

(f) To appoint necessary committees.

(g) To have and exercise such other powers and authority necessary to fulfill its obligations, responsibilities, objectives, and purposes as the governing body of the Tribe.

(h) To foster, encourage and retain the arts, crafts, culture and traditions of the Tribe.

ARTICLE IX - BILL OF RESERVED POWERS

The Business Council and other Agencies of the Tribe are required to obtain the advice and consent of the General Council prior to taking any action with regard to the following powers. The advice and consent of the General Council shall be final when ratified by a majority vote of the membership of the Spokane Tribe at the next general election. 4/

(a) The relinquishment of any Spokane Tribal criminal or civil jurisdiction to any agency, public or private; provided, however, that this provision shall not prevent the Business Council from commissioning non-Spokane or non-Bureau of Indian Affairs peace officers to enforce Spokane Tribal law and order regulations.

(b) The termination or partial termination of the Spokane Indian Reservation.

(c) The sale or tribal hunting, fishing or water rights.

(d) The Business Council may prescribe such compensation of members of the Business Council as it deems advisable from funds as may be available, subject to the approval of the General Council. Unless contrary action is taken by a General Council, yearly salary increase will be made, based on the "National Consumer Price Index," published by the U.S. Department of Labor. The amount of increase will be based on the percent of increase in cost of living from the previous year.

ARTICLE X - INITIATIVE AND REFERENDUM

Section 1. The Spokane Tribe's voting membership is empowered to exercise the legislative powers and duties enumerated in Article VIII through either an initiative or referendum action.

Section 2. Initiative: An initiative shall be in the form of a petition, signed by at least one hundred twenty-five (125) qualified voters, setting out in clear language the legislative action to be taken. Such petition shall comply with the petitioning procedures provided by Section 1, Article VI of this Constitution.

Section 3. Referendum: A referendum is an action by the Business Council referring a legislative matter to the tribal members for enactment or rejection.

Section 4. Elections on Initiatives or Referendums. Whenever an initiative petition with the required signatures is filed at the tribal office or a resolution for a referendum is adopted by the Business Council, an election thereon shall be conducted within forty-five (45) days, unless there is a regular election to be held within ninety (90) days. An election on a referendum or initiative must have a minimum voter turnout of fifty-one percent (51%) of the average voter turnout at the regular tribal elections held during the previous five (5) years.

ARTICLE XI - DUTIES OF OFFICERS

Section 1. Chairman. The Chairman of the Business Council shall preside over all meetings of the Tribe and the Business Council. He shall perform all duties of the Chairman and exercise any authority delegated to him by the Business Council.

Section 2. Vice Chairman. The Vice Chairman shall act as Chairman and perform the duties of Chairman in the Chairman's absence.

Section 3. Secretary. The Secretary shall be responsible for tribal correspondence and reports and shall keep a complete record of minutes of all business conducted at Business Council meetings and Tribal or General Council meetings. The Business Council may delegate an assistant or recording secretary to assist the Secretary in the performance of his duties.

Section 4. Executive Director. The Business Council may employ an Executive Director to assist the Business Council in the performance of the administrative duties. The Executive Director shall be the manager and ranking officer, subject to supervision by the Business Council, in charge of the Tribe Office and its staff. His duties and responsibilities shall be more specifically detailed and outlined in his employment contract.

Section 5. Appointive Officers. The duties of all committees and officers appointed by the Business Council shall be clearly defined in an ordinance passed by the Business Council. Such committee members and officers shall make reports to the Business Council as required.

ARTICLE XII - CODE OF CONDUCT FOR COUNCILMEN AND OTHER EXECUTIVE OFFICERS

Section 1. Hours of duty for Business Councilmen and other elective officers shall be determined as necessary to fulfill their obligations, responsibilities, objectives and purpose as the governing body of the Spokane Tribe.

Section 2. Notice of absence shall be in advance to an authorized representative designated by the Business Council. In case of an emergency, notification should be given at the earliest time possible.

ARTICLE XIII - TIME AND PLACE OF MEETINGS

Section 1. Meetings of Business Council. The Business Council shall hold at least one (1) regular meeting a week at the Tribal headquarters at Wellpinit, Washington, or at other times and places required to satisfactorily fulfill its duties and responsibilities as outlined in this Constitution. Special meetings may be called at any time by the Chairman, by any three Council Members or by a written request signed by at least twenty-five (25) qualified voters of the Spokane Tribe.

Section 2. Tribal and General Council Meetings. There shall be at least (2) General Council meetings a year. One (1) in the month of April and another in the month of November. Additional General Council meetings may be called by the Chairman, by a majority of the Business Council or by a petition signed by at least fifty (50) qualified voters of the Spokane Tribe.

Section 3. Quorum. A quorum of the Business Council shall consist of three (3) members. A quorum of the General Council shall consist of fifty (50) qualified voters of the Spokane Tribe. Once a quorum is established at a General Council meeting it shall be deemed to continue until the end of that day's meeting.

Section 4. Binding Power of the General Council Votes. A vote of the General Council on any and all matters shall be final and binding on the Business Council when ratified by a majority vote of the membership of the Spokane Tribe at the next general election. 5/

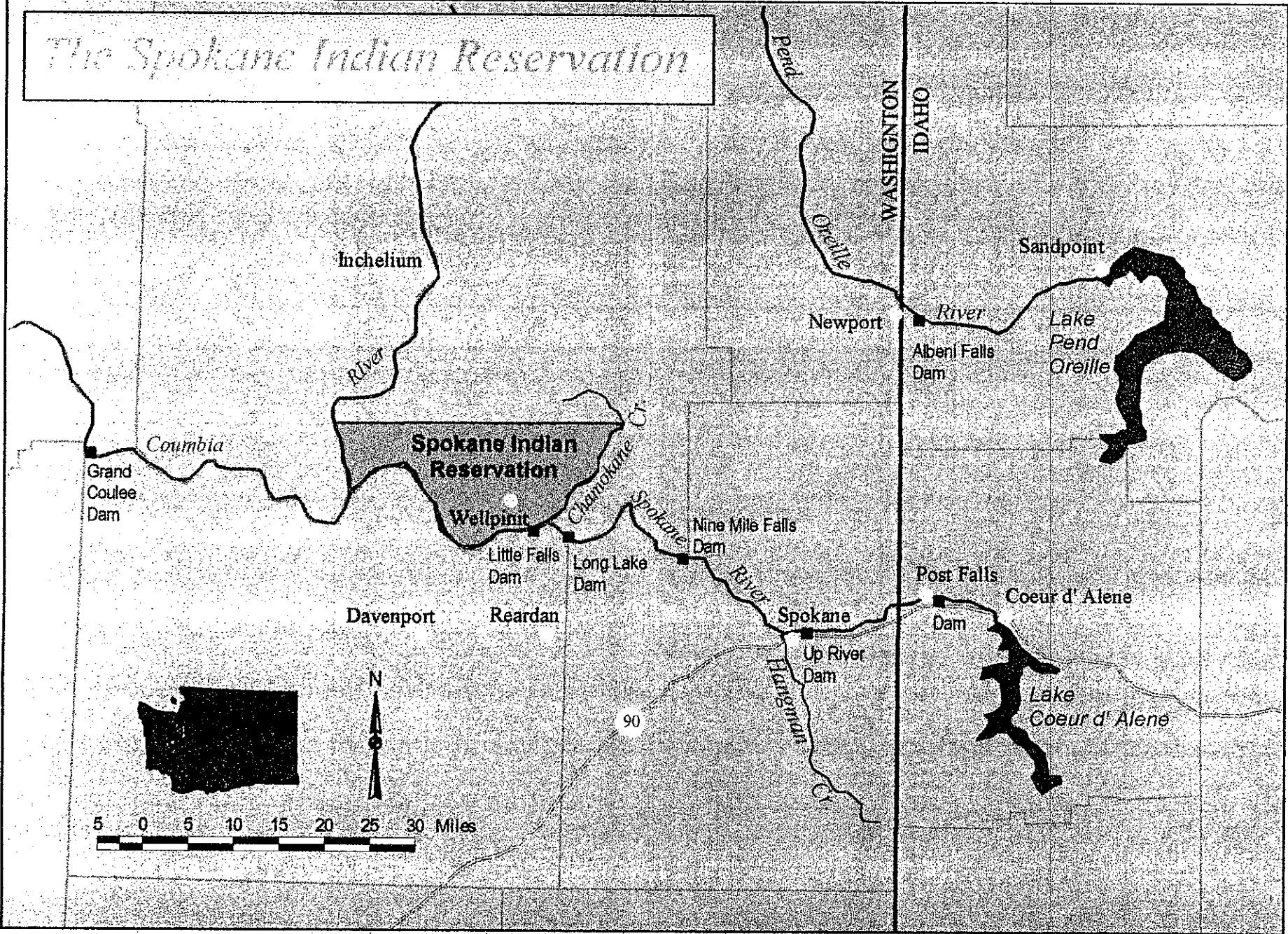
ARTICLE XIV - AMENDMENTS

The Constitution may be amended by a majority vote of the qualified voters of the Spokane Tribe voting in an election in accordance with Article X, Section 4, called for that purpose, by the Business Council. No amendments shall become effective until it has been approved by the Commissioner of Indian Affairs. It shall be the duty of the Business Council to call an election on a proposed amendment upon receipt of a petition therefore signed by at least one hundred twenty-five (125) qualified voters. Such petition shall comply with the petitioning procedures provided by Section 1, Article VI.

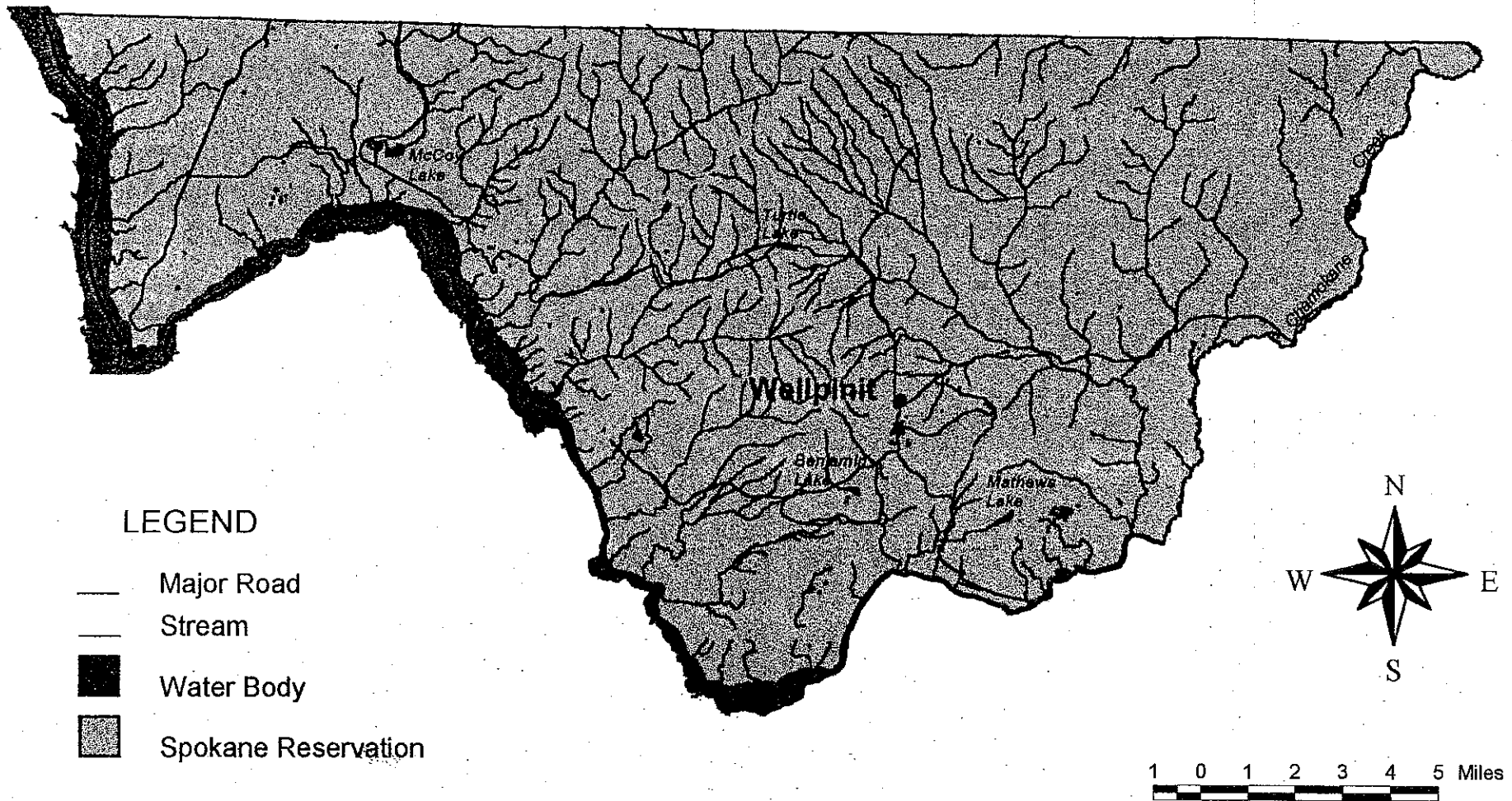
ARTICLE XV - ADOPTION

This Constitution shall become effective when adopted by a majority of the qualified voters of the Spokane Tribe voting at an election called for that purpose by the Business Council and when approved by the Commissioner of Indian Affairs.

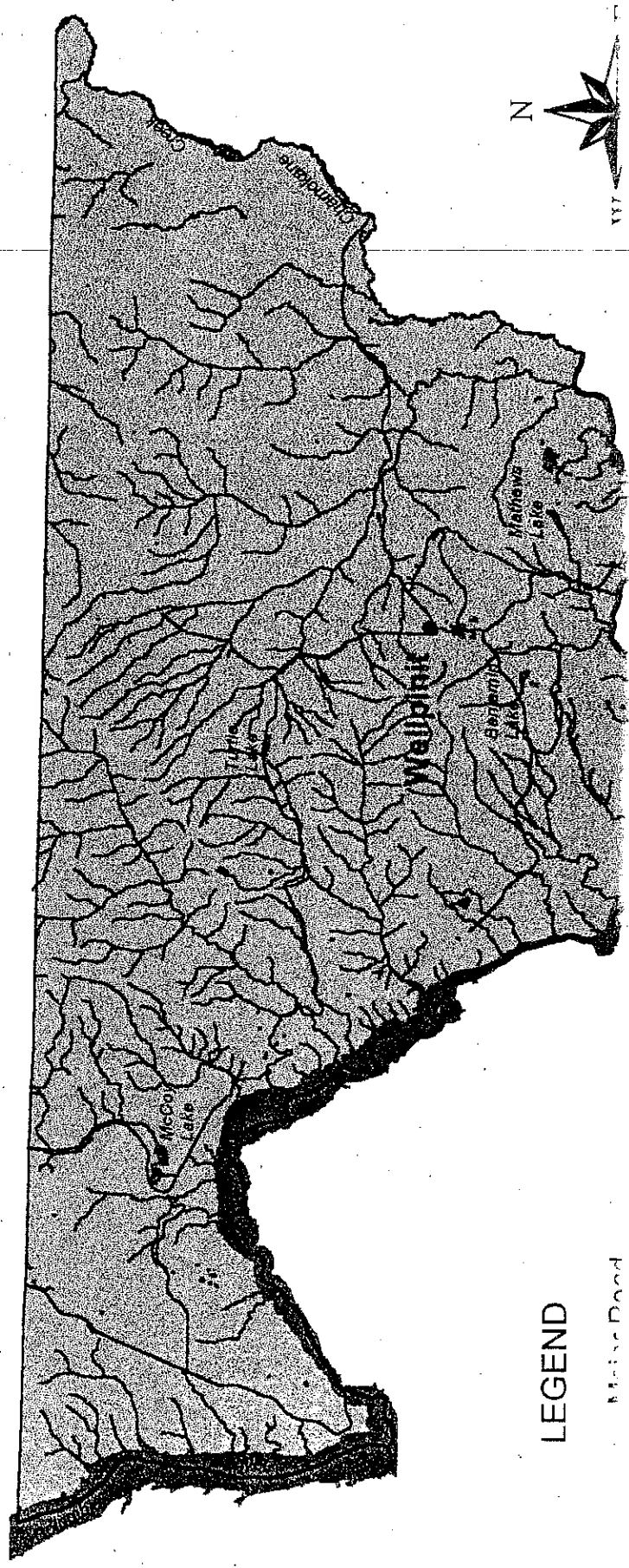
The Spokane Indian Reservation



Spokane Indian Reservation



Spokane Indian Reservation



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Appendix E.

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S. CLARKE,
lonel 6th Infantry,
General Commanding."

Executive order of President R. B. Hayes establishing
the Spokane Reservation in 1881:

Executive Mansion, January 18, 1881.

It is hereby ordered that the following tract of land, situated in Washington Territory, be, and the same is hereby, set aside and reserved for the use and occupancy of the Spokane Indians, namely:

Commencing at a point where Chemekane Creek crosses the forty-eighth parallel of latitude; thence down the east bank of said creek to where it enters the Spokane River; thence across said Spokane River westwardly along the southern bank thereof to a point where it enters the Columbia River; thence across the Columbia River northwardly along its western bank to a point where said river crosses the said forty-eighth parallel of latitude; thence east along said parallel to the place of beginning.

R. B. HAYES.

APPENDIX F.

WATER BODY SPECIFIC
DESCRIPTTIONS OF
POTENTIAL FOR
SERIOUS AND SUBSTANTIAL IMPACTS
OF WATER POLLUTION
ON THE SPOKANE INDIAN RESERVATION

Spokane River

Physical Description : The Spokane is a regulated river which begins at Coeur d'Alene Lake and passes through six dams where it becomes the Spokane Indian Reservation southern boundary and part of Lake Roosevelt.

Adjacent property ownership : Property that lies adjacent to the Spokane River is owned by many different entities such as the Spokane Tribe, State of Washington, private individuals and non-profit organizations.

Beneficial uses : Areas along the River are known to be the sites of early Indian encampments. The River remains an important archeological site. Beneficial uses include, primary and secondary recreation, fish and wildlife habitat. Many Tribal members pursue the Kokanee Salmon runs at Little Falls Dam.

Land use designation : Along the Spokane land uses includes Farm/Pasture lease, rangeland, agriculture, forestry, wastewater treatment, urban, industrial.

Potential water quality impacts : Water quality concerns include human health, aquatic community, fish and wildlife habitat. With major cities along the Spokane there are many urban associated impacts that could be listed.

Columbia River

Physical Description : The Columbia enters the United States near Northport, WA. It flows south until it reaches the Spokane Indian Reservation where it forms the West boundary until it reaches the Spokane River at the south Boundary together forming Lake Roosevelt.

Adjacent property ownership : Property that lies adjacent to the Columbia River is owned by many different entities such as the Spokane Tribe, State of Washington, private individuals and Canada.

Beneficial uses : Areas along the River are known to be the sites of early Indian encampments. The River remains an important archeological site. Beneficial uses include, primary and secondary recreation, fish and wildlife habitat.

Land use designation : Along the Columbia land uses includes Farm/Pasture lease, rangeland, agriculture, forestry, urban and industrial.

Potential water quality impacts : Water quality concerns include human health, aquatic community, fish and wildlife habitat. The Columbia has two Industrial plants in Canada that have historically polluted the river as well as urban areas adjacent to the river.

Tshimikain Creek

Physical Description : The headwaters are located in the Huckleberry mountain range just north of the reservation extending into the res. A portion of the headwaters begins on the Spokane Indian Reservation and flows off where it combines and flows through camas valley. The Creek reenters the reservation at the northern boundary where it becomes the eastern boundary flowing through Walkers Prairie until it enters the Spokane River.

Adjacent property ownership : Property that lies adjacent to Tshimikain Creek is both tribally, and privately owned.

Beneficial uses : Areas along the Creek are known to be the site of early Indian encampments and homes. The Creek remains an important archeological site. Beneficial uses include, primary and secondary recreation, fish and wildlife habitat. The Spokane Tribal Kokanee Fish Hatchery and a State operated fish hatchery are both near the Tshimikain

Land use designation : In the Tshimikain Creek drainage, land uses include rural/agriculture, commercial, residential/commercial, forestry.

Potential water quality impacts : Water quality concerns include impacts to public health, and degradation of fish populations and their habitat. There are three wellhead protection areas in the Tshimikain drainage. The Tshimikain is grazed heavily almost as soon as it leaves its Huckleberry headwaters all the way to the Spokane. There is a septage spreading operation adjacent to a Tshimikain tributary and high Coliform counts have been collected. Adjacent to the Tshimikain near Ford there is a Uranium mill which has contaminated both surface water and groundwater in the drainage basin.

Little Tshimikain Creek

Physical Description : Almost the entire 56 square miles of the Little Tshimikain drainage basin lies within the Spokane Indian Reservation. The upper basin has many branches with the headwaters of Cottonwood Creek at the 4,000 foot level. The lower 3 miles of the creek is in a canyon and a narrow valley running south until it discharges into the Spokane River. At this point the South bank of the Spokane River is the southeastern boundary of the reservation. Centrally located in the Little Tshimikain drainage is the "Lanham" wellhead protection area which is located at the intersection of Little Tshimikain, Cottonwood and Wellpinit creeks.

Adjacent property ownership : Property that lies adjacent to Little Tshimikain Creek is both tribally, and privately owned.

Beneficial uses : Areas along the Creek are known to be the site of early Indian encampments and homes. The Creek remains an important archeological site. Beneficial uses include ceremonial practices, secondary recreation, fish and wildlife habitat.

Land use designation : In the Little Tshimikain Creek drainage, land uses include farm/pasture leases, rangeland, agriculture and forestry.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish populations and their habitat as well as the community water supply.

Wellpinit Creek

Physical Description : The creek is one of the main tributaries for the Little Tshimikain drainage. Headwaters begin on the northeast slope of Wellpinit Mountain. Springs are intermittent through timberlands, and riparian vegetation. The creek enters into Little Tshimikain creek near the community water system, which is known as "Lanham".

Adjacent property ownership : Property that lies adjacent to Wellpinit Creek is both tribally, and privately owned.

Beneficial uses : Wellpinit Creek is able to sustain water year round. Which makes it very important for wildlife habitat. The lower portion of the creek is within the wellhead protection area for the Wellpinit community water system supply.

Land use designation : Land use involves forestry, rangeland and farm/pasture lease.

Potential water quality impacts : The Wellpinit community lagoon empties into a small tributary of Wellpinit creek. In the past the lagoon system has failed and its contents have emptied untreated. Immediate correction of system operation with Tribe and Indian Health Service cooperative efforts. There is continued monitoring of system itself and creek downstream to insure proper working order.

Cottonwood Creek

Physical Description : Cottonwood Creek is intermittent with a very heavy snow-melt runoff and early drying streambed. One branch starts in the high country at 4,000 feet and the other headwater at about 3,000 feet. The creek enters the Little Tshimikain at "Lanham".

Adjacent property ownership : Property that lies adjacent to Cottonwood Creek is both tribally, and privately owned.

Beneficial uses : The Creek remains an important archeological site. Beneficial uses include secondary recreation, fish and wildlife habitat.

Land use designation : The main land use is forestry with one agriculture area.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish populations and their habitat as well as the community water supply.

Blue Creek

Physical Description : Blue Creek headwaters from springs and sub-drainage's from Turtle Lake. It also has two (2) major tributaries; Oyachen Creek and the Midnite Mine Drainage Creek. The creek spills into the lower portion of the Spokane River.

Adjacent property ownership : Property that lies adjacent to Blue Creek is both tribally, and privately owned.

Beneficial uses : Beneficial uses include both primary and secondary recreation, fish and wildlife habitat. There is a documented adfluvial Rainbow Trout population at Blue creek as well as a resident population. The Blue creek area is also designated a big game winter range.

Land use designation : Most of the Creek is in the Blue Creek Wildlife Winter range area. Forestry, mining and rangeland are the other land uses.

Potential water quality impacts : Water quality concerns include impacts to public health, and degradation of fish populations and their habitat. The largest concern is the mine drainage and it's high levels of RadioIsotopes and metals including uranium, high levels of sulfates and the biggest problem of low pH readings indicating an extreme acid problem. The mine treatment plant currently pumps out Approximately 500 gpm of treated water down Mine Drainage which enters Blue Creek. Many of the impacts to the aquatic environment have been well documented in the past. Currently the discharge is high in sulfates and records a very high conductivity reading.

Oyachen Creek

Physical Description : The creek is one of the main tributaries for the Blue Creek drainage. Headwaters are on the west side of Wellpinit Mountain. Springs are intermittent through dry timberlands. Where it enters into Blue Creek approximately (1)one mile from the Spokane River.

Adjacent property ownership : Property that lies adjacent to Oyachen Creek is both tribally, and privately owned.

Beneficial uses : The Oyachen tributary is an important spawning and rearing water body. Most frequently used by rainbow trout. Some kokanee fingerlings have also been found in the lower to mid channel. This area is also part of the Blue creek big game winter range.

Land use designation : Land use is almost exclusively forestry with some rangeland.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

Sand Creek

Physical Description : Sand Creek headwaters begin in the south end of the Huckleberry Mountains. The upper portion of the creek is supplied by intermittent springs. It also has three(3) major tributaries; Rail Creek, Owl Creek and West Branch. The creek empties into the lower portion of the Spokane River.

Adjacent property ownership : Property that lies adjacent to Sand Creek is both tribally, and privately owned.

Beneficial uses : Sand creek contains a resident Brook Trout population. This is an important area for wildlife such as Elk, Moose, Mule Deer, Whitetail Deer, Cougar, Turkey, etc. There are also a couple campgrounds.

Land use designation : Land use is almost entirely forestry with two abandoned mines. The mines are Germania (North and South) and Orazada. Spokane Tribal Water Resources has been monitoring the drainage area and have not found any contamination.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish, wildlife and their habitat.

Rail Creek

Physical Description : The creek is one of the main tributaries for the Sand Creek drainage. Headwaters begin on the southeast slope of Boundary Butte, in the Huckleberry Mountain Range. Which border the northern portion of the reservation. Springs are intermittent through timberlands, and riparian vegetation. It enters Sand Creek approximately five (5) miles up stream from the Spokane river.

Adjacent property ownership : Property that lies adjacent to Rail Creek is both tribally, and privately owned.

Beneficial uses : Rail Creek is able to sustain water year round. Which makes it very important to the surrounding wildlife and vegetation.

Land use designation : Forestry is the principle land use.

Potential water quality impacts : Degradation of fish and wildlife habitat are of high concern.

Owl Creek

Physical Description : The creek is one of the main tributaries for the Sand Creek drainage. Headwaters begin off the reservation, in the Huckleberry Mountain Range. Which border the northern portion of the reservation. Springs are intermittent through timberlands, and riparian vegetation. It enters Sand Creek about mid-drainage.

Adjacent property ownership : Property that lies adjacent to Owl Creek is both tribally, and privately owned.

Beneficial uses : Owl Creek is able to sustain water year round. Which makes it very important to the surrounding wildlife and vegetation.

Land use designation : Forestry is the principle land use.

Potential water quality impacts : Degradation of fish and wildlife habitat are of high concern.

Orazada Creek

Physical Description : Orazada and its tributary, Ferguson creek. Lie in the Orazada Creek Watershed District. Orazada Creek is within steep valleys for almost its entire length. The creek is fed by intermittent springs. The upper portion of the creek sustains water throughout the year. Mid channel sub-surfaces until approximately 2500 feet before entering into the Spokane River where numerous spring are located.

Adjacent property ownership : Property that lies adjacent to Orazada Creek is both tribally, and privately owned.

Beneficial uses : The creek is an important spawning and rearing water body. Most frequently used by rainbow trout. Some kokanee fingerlings have been found in the lower portion as has a mature Kokanee attempting to spawn.

Land use designation : Forestry, farm/pasture, and rangeland are the principle land uses

Potential water quality impacts Water quality concerns include impacts to public health, degradation of fish, wildlife and their habitat. The primary concerns are forestry and rangeland oriented.

Castle Rock Creek

Physical Description : The Creek is fed by intermittent springs. Which begin on the eastern slope of Miller Mountain. and continue through dry timberlands. Where it enters into the Columbia. The creek lies on the western portion of the reservation.

Adjacent property ownership : Property that lies adjacent to Castle Rock Creek is both tribally, and privately owned.

Beneficial uses : Fisheries and wildlife, stock watering, mining and recreation at the mouth on the Columbia.

Land use designation : In the Castle Rock Creek drainage, land uses include rangeland, farm/pasture, mining and forestry.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

Deep Creek

Physical Description : The creek is a tributary for the Little Tshimikain. Headwaters begin on reservation. Springs are intermittent through timberlands, and riparian vegetation. The creek enters into Little Tshimikain creek above the area known as "Lanham".

Adjacent property ownership : Property that lies adjacent to Deep Creek is both tribally, and privately owned.

Beneficial uses : Deep creek holds water throughout the year making this an important area for wildlife and stock watering as well as a feeder stream to the Little Tshimikain.

Land use designation : Land uses include rangeland and forestry.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

Turtle Lake

Physical Description : Turtle Lake is centrally located on the Reservation and is just above the Blue Creek Headwater seeps/springs. The Lake is about 12 acres with the deepest spot about 63 feet.

Adjacent property ownership : Property that lies adjacent to Turtle Lake is Tribally owned.

Beneficial uses : Beneficial use include primary and secondary recreation as well as fish and wildlife habitat

Land use designation : Land uses includes rangeland, forestry and recreation.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

McCoy Lake

Physical Description : McCoy Lake is located on the west end of the Reservation. The Lake is about 37 acres with the deepest spot about 55 feet.

Adjacent property ownership : Property that lies adjacent to McCoy Lake is Tribally owned.

Beneficial uses : Beneficial use includes primary and secondary recreation as well as fish and wildlife habitat.

Land use designation : Land uses includes rangeland, forestry and recreation.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

Benjamin Lake

Physical Description : Benjamin Lake is located in the central-southern area of the Reservation. The Lake is about 13.4 acres with the deepest spot about 35 feet. The Lake is surrounded by about 23 acres of marsh area.

Adjacent property ownership : Property that lies adjacent to Benjamin Lake is both Tribally and privately owned.

Beneficial uses : Beneficial use includes primary and secondary recreation as well as fish and wildlife habitat.

Land use designation : Land uses includes pasture/farm lease, rangeland, forestry and recreation.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat. A backup well for the community drinking water system is close to Benjamin Lake.

Mathew Lake

Physical Description : Mathew Lake is located on the southwest area of the Reservation. The Lake is just under 3 acres with the deepest spot about 20 feet.

Adjacent property ownership : Property that lies adjacent to Mathew Lake is both Tribally and privately owned.

Beneficial uses : Beneficial use includes primary and secondary recreation as well as fish and wildlife habitat.

Land use designation : Land uses includes rangeland, forestry and recreation.

Potential water quality impacts : Water quality concerns include impacts to public health, degradation of fish and wildlife habitat.

**STANDARD OPERATING PROCEDURES
FOR WATER QUALITY MONITORING**

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Selection of Sampling Sites

SAMPLE COLLECTION:

Application: Selecting sites suitable for collection of water samples.

General Considerations:

1. The guidelines given below will be followed whenever possible. However, due to variability in flow and other site specific conditions, Water Resources staff must use their best judgment when locating sampling sites. If standard guidelines can not be followed, any non-standard procedures and circumstances will be noted in the field book and kept on record.

Guidelines:

1. Sites should be deep enough to allow a sample bottle to be submerged without disturbing the bottom sediments. If bottom sediments are disturbed, another upstream location should be chosen. If no other suitable locations can be found, the site should be allowed to flush completely before samples are collected.
2. Stream samples should be collected from the portion of the channel with predominant flow. Samples will not be taken from back-water pools of standing water where relatively long retention times allow the water to stagnate.
3. The outfall from culverts should not be sampled when collecting bacteriological samples due to risk of contamination. Bacteria generally concentrate at the top of the water surface, and as such, well mixed areas should be chosen for a sample.

VELOCITY MEASUREMENT:

Application: Selecting sites suitable for flow measurements.

General Considerations:

1. The guidelines given below will be followed whenever possible, but seldom will all of the following criteria be met at a given site. If conditions are considerably different from those described below, they will be noted in a field book and kept on record.
2. Flow measurements will be made within the same stream reach at high and low flows, but they do not have to be taken from the same cross section.
3. Daily high and low flow measurements will be averaged to determine average daily flows.

Guidelines:

1. The stream reach chosen for measurement should be straight for a significant length so as to have an ordinary flow pattern upstream and downstream of the site.
2. No surface or subsurface flow should bypass the site (i.e. the flow should be confined to one channel).
3. The site should be located far enough upstream of tributaries such that they do not influence flow regimes.
4. Areas downstream of rapid changes in stream gradient and velocity should be avoided.
5. The cross section used for measurements should be located in an area with:
 - Parallel stream banks,
 - relatively few large rocks,
 - few or small irregularities on the bottom,
 - a relatively uniform stream bed,
 - no eddies, slack water, or excessive turbulence, and;
 - little or no vegetation.

Collection of Water Samples

CHEMICAL/PHYSICAL MEASUREMENTS:

Application: Collecting water samples for laboratory analysis of all parameters listed in table 1.

General considerations:

Complete and unequivocal preservation of sample, either domestic or sewage, industrial wastes, or natural waters, is a practical impossibility. Regardless of the nature of the sample, complete stability for every constituent can never be achieved. At best, preservation techniques can only retard the chemical and biological changes that inevitably continue after the sample is removed from the parent source. The changes that take place in a sample are either chemical or biological. In the former case, certain changes occur in the chemical structure of the constituents that are a function of physical conditions. Metal cations may precipitate as hydroxides or form complexes with other constituents; cations or anions may change valence states under certain reducing or oxidizing conditions; other constituents may dissolve or volatilize with the passage of time. Metal cations such as iron and lead, may also absorb onto various surfaces including glass, plastic, quartz, etc.. Biological changes taking place in a sample may change the valence of an element or a radical to a different valence. Soluble constituents may be converted to organically bound materials in cell structures, or cell lysis may result in release of cellular material into solution. The well known nitrogen and phosphorous cycles are examples of biological influence on sample composition. Therefore, as a general rule, it is best to analyze the samples as soon as possible after collection. This is especially true when the analyte concentration is expected to be in the low $\mu\text{g/l}$ range.

Methods of preservation are relatively limited and are intended generally to: (1) retard biological action, (2) retard hydrolysis chemical compounds and complexes, (3) reduce volatility of constituents, and (4) reduce absorption effects. Preservation methods are generally limited to pH control, chemical addition, refrigeration, and freezing.

The recommended preservative for various constituents is given in table 1. These choices are based on the accompanying references and on information supplied by various Quality Assurance Coordinators. As more data become available, these recommended holding times will be adjusted to reflect new information. Other information provided in the table is an estimation of the volume of sample required for analysis, the suggested type of container, and the maximum recommended holding times for properly preserved samples.

The Water Resources Staff will follow these sample preservation procedures for all water collected in conjunction with this Standard Operating Procedure manual. Samples not collected in conjunction with this manual will follow recommendations from the laboratory doing the analyses.

Table 1. Recommendations for sample volumes collected, preservation method and holding times by measurement or analyte. According to Measurement 1 or analyte.

Measurement	Volume Required, (ml)	Container ²	Preservative ^{3,4}	Holding Time ⁵
<u>100 Physical</u>				
Color	50	P,G	Cool, 4'C	48 Hrs.
Conductance	100	P,G	Cool, 4'C	28 Days
Hardness	100	P,G	HNO ₃ to pH<2	6 Mos.
Odor	200	G only	Cool to 4'C	24 Hrs.
pH	25	P,G	None Req.	Analyze, (on site)
Residue:				
Filterable	100	P,G	Cool to 4'C	7 Days
Non-Filterable	100	P,G	Cool to 4'C	7 Days
Total	100	P,G	Cool to 4'C	7 Days
Volatile	100	P,G	Cool to 4'C	7 Days
Settleable Matter	1000	P,G	Cool to 4'C	48 Hrs.
Temperature	1000	P,G	None Req.	Analyze, (on site)
Turbidity	100	P,G	Cool, 4'C	48 Hrs.
<u>200 Metals</u>				
Dissolved	200	P,G	HNO ₃ to pH<2	6 Mos.
Suspended	200	P,G		6 Mos. ⁸
Total	100	P,G	HNO ₃ to pH<2	6 Mos.
Chromium ⁺⁶	200	P,G	Cool, 4'C	24 Hrs.
Mercury Dissolved	100	P,G	HNO ₃ to pH<2	28 Days
Total Metals	100	P,G	HNO ₃ to pH<2	28 Days
<u>300 Inorganics & Non-Metallics</u>				
Acidity	100	P,G	Cool, 4'C	14 Days
Alkalinity	100	P,G	Cool, 4'C	14 Days
Bromide	100	P,G	None req.	28 Days
Chloride	50	P,G	None req.	28 Days
Chlorine	200	P,G	None req.	Analyze Immed.
Cyanides	500	P,G	Cool, 4'C	14 days ⁷
			NaOH to pH>12 0.6g ascorbic acid ⁹	
Fluoride	300	P,G		28 Days
Iodide	100	P,G	Cool, 4'C	24 Hrs.
Nitrogen:				
Ammonia N	400	P,G	Cool, 4'C, H ₂ SO ₄ to pH<2	28 Days
Total Kjeldahl N	500	P,G	Cool, 4'C, H ₂ SO ₄ to pH<2	28 Days
Nitrate+Nitrite	100	P,G	Cool, 4'C, H ₂ SO ₄ to pH<2	28 Days

Measurement	Volume Required, (ml)	Container ²	Preservative ^{3,4}	Holding Time ⁵
Nitrate ⁹	100	P,G	Cool, 4'C	48 Hrs.
Nitrite	50	P,G	Cool, 4'C	48 Hrs.
Dissolved Oxygen	300	G bottle and top	None Req.	Analyze Immediately
Winkler	300	G bottle and top	Fix on site, store dark	8 Hrs.
Phosphorous: Ortho- Phosphate,Dis- solved	50	P,G	Filter, Cool, 4'C	48 Hrs.
Hydrolyzable	50	P,G	Cool, 4'C, H2SO4 to pH<2	28 Days
Total	50	P,G	Cool, 4'C, H2SO4 to pH<2	28 Days
Total, Dissolved	50	P,G	Filter, Cool, 4'C	24 Hrs.
Silica	50	P only	Cool, 4'C	28 Days
Sulfate	50	P,G	Cool, 4'C	28 Days
Sulfide	500	P,G	Cool, 4'C add 2ml zinc acetat +NaOH to ph>g	7 Days
Sulfite	50	P,G	None Req.	Analyze Immediately
<u>400 Organics</u>				
BOD	1000	P,G	Cool, 4'C	48 Hrs.
COD	50	P,G	Cool, 4'C, H2SO4 to pH<2	28 Days
Oil & Grease	1000	G only	Cool, 4'C, H2SO4 to pH<2	28 Days
Organic Carbon	25	P,G	Cool, 4'C, H2SO4 to pH<2	28 Days
Phenolics	500	G only	Cool, 4'C, H2SO4 to pH<2	28 Days
MBAS	250	P,G	Cool, 4'C	48 Hrs.
NTA	50	P,G	Cool, 4'C	24 Hrs.

Key to Table1 footnotes:

1. More specific instructions for preservation and sampling can be found with each procedure as detailed in the Spokane Tribal Laboratory manual.
2. P and G stand for plastic and glass containers. For metals, a polyethylene with a polypropylene cap (no liner) is preferred.
3. Sample preservation must be performed immediately upon sample collection. For composite samples each aliquot must be preserved at the time of collection. When the use of an automated sampler makes it impossible to preserve each aliquot, samples will

be preserved by maintaining them at 4°C until compositing and sample splitting is completed.

4. When any sample is to be shipped by common carrier or sent through the United States Mail, it will comply with the Department of Transportation Hazardous Materials Regulations (49 CFR Part 172). The person offering such material for transportation is responsible for ensuring such compliance. For the preservation requirements of Table 1, the Office of Hazardous Materials, Materials Transportation Bureau, Department of Transportation has determined that the Hazardous Materials regulations do not apply to the following materials: Hydrochloric acid (HCL) in water solutions at concentrations of 0.04% by weight or less (pH about 1.96 or greater); Nitric acid (HNO₃) in water solutions at concentrations of 0.15% by weight or less (pH about 1.62 or greater); Sulfuric acid (H₂SO₄) in water solutions at concentrations of 0.35% by weight or less (pH about 1.15 or greater); Sodium hydroxide (NaOH) in water solutions at concentrations of 0.080% by weight or less (pH about 12.30 or less).
5. Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid. Samples may be held for longer periods only if the permittee, or monitoring laboratory, has data on file to show that the specific types of sample under study are stable for a longer period of time, and has received a waiver from the Regional Administrator. Some samples may not be stable for the maximum time period given in the table. A permittee, or monitoring laboratory, is obligated to analyze the sample in a shorter amount of time, if knowledge exists to show that it is necessary to maintain sample stability.
6. Should only be used in the presence of residual chlorine.
7. Maximum holding time is 24 hours when sulfide is present. Optionally, all samples may be tested with lead acetate paper before the pH adjustment in order to determine if sulfide is present. If sulfide is present, it can be removed by the addition of cadmium nitrate powder until a negative spot test is obtained. The sample is filtered and then NaOH is added until a pH of 12 is reached.
8. Samples should be filtered immediately on-site before adding a preservative for dissolved metals.
9. For samples from non-chlorinated drinking water supplies concentrated H₂SO₄ should be added to lower the sample pH to less than 2. The sample should be analyzed within 14 days.

Additional Guidelines for Water Sample Collection:

1. Verify that the identification information on the sample bottle to be used corresponds to the site being sampled.
2. Only remove the cap from the container just prior to sample collection.
3. Grasp the container at the base, away from the mouth, and quickly submerge the bottle (mouth down) below the surface.
4. Turn the bottle into the flow with the mouth angled slightly upward to allow air to escape and the bottle to fill.
5. If there is no current, create one by moving the bottle forward horizontally (away from your hand).
6. Rinse the container and cap three times by repeating steps 2-5.
7. Facing upstream, collect a grab sample in front of your body at mid-stream (or the portion with predominant flow) and at mid-depth.
8. Finally, leave approximately 50 ml of air space and cap the bottle as soon as possible.

BACTERIAL ANALYSIS:

Application:	Collecting water samples for detection of Coliform bacteria and if present enumeration and identification of kind.
Container:	Sterilized 120mL polyethylene bottle.
Preservative:	Sodium Thiosulfate.
Storage:	<10 C°
Holding Time:	Samples must be analyzed within 24 hours of collection.

Sample Collection Procedure:

1. Verify that the identification on the sample bottle to be used corresponds to the site being sampled.
2. Only use sterilized bottles as described above.
3. Remove the cap from the container just prior to sample collection.
4. Grasp the container at the base, away from the mouth, and quickly submerge the bottle (mouth down) below the surface.
5. Turn the bottle into the flow with the mouth angled slightly upward to allow the air to escape and the bottle to fill.
6. If there is no current, create one by moving the bottle forward horizontally away from your hand.
7. Facing upstream, collect a grab sample in front of your body at mid-stream (or the portion with predominant flow) and at mid-depth.
8. Leave approximately 1 inch of the container volume as air space and cap the bottle as soon as possible.
9. If sampling from a outlet such as a faucet, wipe down all exposed faucet areas with a dilute bleach solution and then allow the water to flow for approximately 5 minutes prior to collecting a sample.

General Considerations:

1. DO NOT rinse the sample bottle before collection.
2. DO NOT contaminate the lid or inside of the bottle with your fingers, dirt, dust, or anything else.
3. DO NOT pour water into total Coliform bottle from another container.
4. Fill sample bottle only to the EPA fill line (110 mls) as air space is required to allow proper mixing before analysis.
5. Bacteria generally concentrate at the water surface, and as such this layer should be avoided by plunging the bottle with the mouth facing down and also by sampling from well mixed areas if possible.

Guidelines for the Use of Field Instruments:

DISSOLVED OXYGEN METERS

Application:	Measuring the dissolved oxygen concentration in freshwater.
Instrument used:	Hydrolab Scout II.
Sensor:	Rebuildable polarographic; 1 mil Teflon or LoFlow
Range:	0.00 to 20.00 mg/L
Compensations:	Automatic for temperature and salinity.
Resolutions:	0.01 mg/L
Accuracy:	± 0.2 mg/L
Calibrations:	Saturated air, winkler, or saturated water standards.
Response Time:	< 1 minute
Stability:	One month.
Output Options:	salinity correction / % saturation.

Calibration Procedure:

1. With the transmitter oriented so that the sensors are pointed toward the ceiling, fill the calibration cup with distilled water until the water is just level with the o-ring used to secure the membrane.
2. Carefully remove any water droplets from the membrane with the corner of a soft tissue.
3. Turn the white calibration cup lid upside down (concave upward) and lay it over the top of the calibration cup. Wait for the readings to stabilize.
4. Use Winkler titration or another lab instrument to standardize.
5. Adjust barometric pressure.
6. Check DO % saturation.
7. Go to oxygen on calibration menu.

Measurement Procedure

1. Calibrate the instrument as described in steps 1-7 above.
2. Remove the probe from the calibration chamber or the storage solution and completely immerse it in the water to be tested.
3. Allow sufficient time - at least one minute, for the dissolved oxygen reading to stabilize. Record the dissolved oxygen value.
4. Remove the probe from the water, rinse it with distilled water, and place it back in the calibration chamber.

Quality Control:

1. The Hydrolab is re-calibrated using the appropriate elevation at a minimum of once per month before measurements are taken.
2. At least 20% of dissolved oxygen measurements are taken in duplicate.
3. If values generated during step 2 are not within ± 1.0 mg/L, the instrument is recalibrated and checked again.

CONDUCTIVITY:

Application:	Measuring the conductivity of freshwater.
Instrument:	Hydrolab Scout II
Sensor:	6-electrode cell
Range:	0 to 100 mS/cm
Compensations:	Automatic for temperature and salinity.
Resolutions:	4 digits.
Accuracy:	$\pm 1\%$ of range
Calibrations:	KCL or seawater standards.
Response Time:	< 1 minute.
Stability:	Six months.
Output Options:	Salinity, conductivity, TDS, or resistivity in (mS/cm).

Calibration:

1. Thoroughly rinse the sensors several times by half-filling the calibration cup with deionized water and shaking the Transmitter to make sure each sensor is free from contaminants that might alter the specific conductance standard.
2. In a similar manner, rinse the sensors twice with a small portion of specific conductance standard to be used for calibration, and discard the rinse.
3. With the calibration cup screwed onto the transmitter and the sensors pointed toward the ceiling, pour in a standard to within a centimeter of the top of the cup making sure that no bubbles are in the bores of the Cell Block.
4. Watch the specific conductance readings until they have stabilized - the sensor is now ready for calibration.
5. Select specific conductance from the Calibrate menu and adjust the reading to match the calibration standard value. Press Enter to set the calibration and return to the data display screen.

Measurement:

1. Calibrate the instrument as described in steps 1-5 above.
2. Remove the probe from the calibration chamber or the storage solution and completely immerse it in the water to be tested.
3. Allow sufficient time - at least one minute - for the conductivity reading to stabilize. Record the conductivity value.
4. Remove the probe from the water, rinse it with distilled water, and place it back in the calibration or storage chamber.

Quality Control:

1. The Hydrolab is re-calibrated at least once per month.

pH MEASUREMENT:

Application: Measuring the pH of fresh water.

Instrument: Hydrolab Scout II.

Sensor: Glass pH; rebuildable or low ionic strength reference electrode.

Range: 0 to 14 units.

Compensations: Automatic for temperature.

Resolutions: 0.01 unit.

Accuracy: ± 0.2 units.

Calibrations: pH 7 buffer, plus one slope buffer.

Response Time: < 1 minute.

Stability: One month.

Calibration:

1. With the transmitter oriented so that the sensors are pointed toward calibration cup with a known buffer solution near pH 7 and wait to stabilize. Enter known pH and save.
2. Add known slope buffer solution (can be either 4 or 10 but they must be that the field samples collected fall between the calibration range) and wait to stabilize. Enter known pH and save.

Measurement:

1. Calibrate the instrument as described in steps 1-2 above.
2. Remove the probe from the calibration chamber or the storage solution and immerse it in the water to be tested.
3. Allow sufficient time; at least one minute, for pH reading to stabilize.
4. Remove the probe from the water, rinse it with distilled water, and store in calibration chamber.

Quality Control:

1. The Hydrolab is re-calibrated once per month which is more frequent than most.

TEMPERATURE

Application: Measuring the temperature of surface water

Instrument: Hydrolab Scout II

Sensor: Thermistor.

Range: -5 to 50 C

Compensations: None required

Resolutions: 0.01 C

Accuracy: ± 0.15 C

Calibrations: None required

Response Time: < 1 minute

Stability: 3 years

Output Options: In degrees F

Calibration:

1. None required

Measurement:

1. Remove the probe from the calibration chamber or the storage solution and completely immerse it in the water to be tested.
2. Allow sufficient time, at least one minute, for temperature reading to stabilize. Record the temperature value.
3. Remove the probe from the water, rinse it with distilled water, and place it back in the calibration chamber.

Quality Control:

1. The Hydrolab temperature sensor is accurate for at least three years.

DEPTH

Application: Measuring the depth of surface waters.

Instrument: Hydrolab Scout II

Sensor: Strain gauge transducer.

Range: 0 to 100 m

Compensations: Automatic for specific conductance.

Resolutions: 0.1 m

Accuracy: ± 0.45 m

Calibrations: Set zero in air

Response Time: < 1 minute

Stability: One month

Output Options: In feet

Calibration:

1. Place the transmitter at a known depth at or near the water surface and select D from the calibration menu.
2. Enter value representing current depth and save.

Measurement:

1. Calibrate the instrument as described in steps 1-2 above.
2. Remove the probe from the calibration chamber or the storage solution and completely immerse it in the water to be tested.
3. Allow sufficient time for depth reading to stabilize. Record the depth value.
4. Continue until all depth measurements are recorded then remove the probe from the water, rinse it with distilled water, and place it back in the calibration or storage chamber.

Quality Control:

1. The Hydrolab is re-calibrated once per month which is more frequent than required.

VELOCITY

Application:	Measuring the velocity of flowing water.
Instrument:	Marsh McBirney 2000
Method:	Electromagnetic
Range:	-0.50 ft/s to 19.99 ft/s -0.15 m/s to +6 m/s
Resolutions:	0.01 ft/s
Accuracy:	$\pm 2\% + 0.05$ ft/s
Equipment:	Calibrated Wading Rod, Current Meter
Reagents:	None

Calibration:

1. Place the sensor in a five gallon plastic bucket of water. Keep the sensor at least three inches away from the sides and the bottom of the bucket. Wait at least 10 minutes before taking readings.
2. Use a filter value of five seconds. Zero stability is $+ 0.05$ ft/s.
3. If reading not acceptable press STO and RCL keys at the same time and a 3 will appear on the display.
4. Decrement to 0 with the arrow key.
5. The unit will decrement itself to zero and turn off.

Measurement:

1. Fasten a tape measure across the stream from the bank to bank just above the water level and perpendicular to the flow.
2. Attach the transducer to the wading rod.
3. Determine the number and length of intervals needed to define the channel's bed contour. Use intervals of 0.5 to 1 ft, or as needed.
4. Using the wading rod, measure the depth from the water surface to the river bed at the first interval. Record the depth to the nearest half-inch.
5. Set the selector and time constant switches to the desired measuring units, generally ft/s and 20 seconds, respectively.
6. Make sure the probe faces upstream.
7. If the water depth is > 2 ft., measure the velocity at 2/10 and 8/10 from the surface. If the depth is < 2 ft., measure at 6/10 depth from the surface by setting the rod appropriately.
8. To measure, wait for the delay time then record the value.
9. Be sure to record depth, and velocity at each measurement point.
10. Repeat steps 4 to 9 until reaching the opposite stream bank.

Quality Control:

1. At least 20% of the velocity measurements taken in a given stream cross section will be taken in duplicate.
2. A record of the precision for velocity measurements and flow calculations will be kept in Microsoft excel format and updated quarterly.
3. The velocity profile will be measured twice for at least 20% of the sites measured in a sampling day.

General Considerations

1. Right and left banks are defined while facing downstream.
2. A standing wave is created when the wading rod is placed in flowing water.
3. Depth measurements are taken at the base of the standing wave (the surface of the waterbody).

Maintenance

1. The probe is dried before storage.
2. The cables, connections, and electrode are inspected regularly, and a record of maintenance activities is kept in the instrument maintenance schedule.

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